

F. LENT COOPERATION TREA

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

10:

Assistant Commissioner for Patents United States Patent and Trademark Office

Box PCT Washington, D.C.20231 ÉTATS-UNIS D'AMÉRIQUE

Date of mailing (day/month/year)

21 January 2000 (21 01 00)
in its capacity as elected Office

21 January 2000 (21.01.00)

International application No.
PCT/US99/06537

International filing date (day/month/year)
19 April 1999 (19.04.99)

Applicant

Applicant

FANG, Fang

1.	The designated Office is hereby notified of its election made:
·	X in the demand filed with the International Preliminary Examining Authority on:
	18 November 1999 (18.11.99)
`-	in a notice effecting later election filed with the International Bureau on:
• .	·
2.	The election X was
	was not
	made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Authorized officer

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REC'D	1	5	AUG	2000	
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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

19815-2PC		tification of Transmittal of International of International Programme of the Internation Report (Form PCT/IPEA/416					
International application No.	International filing date (day/month/year)	Priority date (day/month/year)					
PCT/US99/06537	19 APRIL 1999	24 APRIL 1998					
International Patent Classification (IPC) Please See Supplemental Sheet.	or national classification and IPC						
Applicant FANG, FANG							
Examining Authority and is 2. This REPORT consists of a This report is also accombeen amended and are to (see Rule 70.16 and Sec	s transmitted to the applicant according a total of sheets. mpanied by ANNEXES, i.e., sheets of the delete basis for this report and/or sheets contain ction 607 of the Administrative Instruction	escription, claims and/or drawings which ha					
These annexes consist of a t							
3. This report contains indicatio	ons relating to the following items:						
I X Basis of the repo	ort						
II Priority	Priority						
III Non-establishment of report with regard to novelty, inventive step or industrial applicability							
IV Lack of unity of invention							
V X Reasoned stateme	ent under Article 35(2) with regard to nove anations supporting such statement	lty, inventive step or industrial applicability					
VII Cortain defeats in	the international application						
	the international application						
	the international application						
		or of this report					
VIII Certain observation	ns on the international application	•					
VIII Certain observation	Date of completi						
VIII Certain observation Date of submission of the demand 18 NOVEMBER 1999	Date of completi	0					

Form PCT/IPEA/409 (cover sheet) (July 1998)*





International application No.

PCT/US99/06537

L	B	asis of th	ne report	· *			
1	. With	regard to	the elements of the internal	tional application	: .	.=	
	x		mational application as	••			
	\mathbf{x}	the desc	cription:	_			
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		pages _	NONE				, filed with the demand
		pages _	NONE		, filed with the lette	er of	
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		the langu	uage of a translation furnage of publication of the translation furni	he internation	nal application (under	Rule 48.3(b)).	der Rule 23.1(b)). nation (under Rules 55.2 and/
3.	With	n regard t iminary e	to any nucleotide and/or examination was carried of	amino acid so	equence disclosed in the sis of the sequence list	ne international ap	oplication, the international
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1		The staten been furni	ment that the information rished.	recorded in con	mputer readable form is	identical to the wr	riten sequence listing has
4.	X		endments have resulted i		ation of:		
	!	the	description, pages	NONE			
	1	LX the	claims, Nos.	NONE			
	1		drawings, sheets/fig_	NONE			
5.			nt has been drawn as if (so	me of) the am	endments had not been n	nade since they ha	we been considered to go
		beyond the	the disclosure as filed, as in	ndicated in the	Supplemental Box (Rule	e 70.2(c)).**	_
	in thi	icement sh	eets which have been furnis	shed to the rece	iving Office in response to	o an invitation unde	er Article 14 are referred to amendments (Rules 70.16
		-	ent sheet containing such o	amendments n	ust be referred to under	r item 1 and anne	exed to this report.



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/06537

NO

٠.	citations and explanations supporting such statement					
1.	statement					
	Novelty (N)	Claims	1-15	YES		
		Claims	NONE	NO		
	Inventive Step (IS)	Claims	9-15	YES		
		Claims	1-8	NO		

Claims 1-15

Claims NONE

Passaged statement under Article 35(2) with regard to payalty inventive step on industrial and the Little

expressed as fusion proteins on surface of bacteriophages.

Industrial Applicability (IA)

2. citations and explanations (Rule 70.7)
Claims 1-4 lack an inventive step under PCT Article 33(3) as being obvious over US Patent No. 5,723,826 to Dower et al. US Patent No. 5,723,826 discloses methods for screening for complementary peptide ligands to a target protein, using a collection of nucleic acids that may be based on either a known or an unknown ligand sequence, where the nucleic acid sequences are

Claims 5-8 lack an inventive step under PCT Article 33(3) as being obvious over US Patent No. 5,723,826 to Dower et al. in view of US Patent No. 5,077,195 to Blalock et al. The relevant teachings of US Patent No. 5,723,826 are set forth above. US Patent No. 5,723,826 does not disclose complementary peptides that are anti-sense peptides. US Patent No. 5,077,195 discloses determining anti-sense peptide ligands for a protein of interest. It would have been obvious to one of ordinary skill in the art at the time the invention was made to design anti-sense peptides of US Patent No. 5,077,195 for expression and screening by the method of US Patent No. 5,723,826 because US Patent No. 5,077,195 establishes the interest in designing and making anti-sense peptide ligands and because US Patent No. 5,723,826 provides a generally applicable and successful method for screening for complementary peptide ligands to a target protein.

Claims 1-15 meet the criteria set out in PCT Article 33(2) because the prior art does not anticipate the claimed screening and treatment methods.

Claims 9-15 meet the criteria set out in PCT Article 33(3) because the prior art does not teach or fairly suggest the claimed screening and treatment methods based on binding to the framework 2 region of an immunoglobulin molecule.

Claims 1-15 meet the criteria for industrial applicability set out in PCT Article 33(4) because the claimed methods can be used to screen for peptides of interest that may be used to treat autoimmune or allergic conditions.

(Continued on Supplemental Sheet.)





PCT/US99/06537

Supplemental Box (To be used when the space in any of the preceding boxes is not sufficient)				
Continuation of: Boxes I - VIII	Sheet 10			
CLASSIFICATION: The International Patent Classification (IPC) and/or the National classification are as listed below: IPC(7): C12Q 1/68; C12P 19/34; A61K 39/395, 38/02 and US Cl.: 435/6, 91.2; 424/131.1, 143.1; 514/2 V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):				
NONE NEW CITATIONS				





INTERNATIONAL SEARCH REPORT

International application No. PCT/US99:06537

IPC(6) 9 US CL 9 According to	SIFICATION OF SUBJECT MATTER C12Q 1768; C12P 19734; A61K 39/395, 38/02 43576, 91.2; 424/131.1; 143.1; 514/2 o laternotional Potent Classification (IPC) or to both matic	onal classification and IPC	
B. FIEL	DS SEARCHEU resmentation searched (classification system followed by	Alasii Connies assatalet	
	135%, 91.2; 424/131.1, 143.1; \$14/2	(Checkern standar)	
		#44	
Jo camentat	ion secrebed other than minimum documentation to the ex	tent that such documents are included	in the Gelds searched
	ata base consulted during the international search (name wear/WEST: Dialog	of data base and, where practicable.	search torms used)
C. DOC	UMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appro	priate, of the relevant passages	Relevant to claim No.
Y	US 5,077,195 A (BLALOCK et al.) 31 document, especially col. 22, lines 52-57		1-15
Y	US 5,723,286 A (DOWER et al.) 03 document.	March 1998, see entire	1-15
Y	US 5,081,584 A (OMICHINSKI et al.) I document.	14 January 1992, see entire	1-15
Y	US 5,223,409 A (LADNER et al.) 2 document.	29 June 1993, see entire	1-15
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	l'and in the particulation of Roy C	See asset family array	
<u> </u>	her documents are listed in the continuation of Box C.	See patent family annex.	remational filing date or priority
.V. q	ocument defining the general state of the art which is not considered	date and not in conflict with the app the principle or theory underlying the	lication but cited to understand
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